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### The multi-level governance challenge of climate change

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## EDITORIAL

# The multi-level governance challenge of climate change

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The problem of climate change calls for global action to deal with the emissions of greenhouse gases (GHGs) and adaptation policies to enhance the resilience of people to cope with the potential impacts of climate change. The literature and politics has focused on the bottlenecks at the global and European Union level, examining the limits of the international and supranational political framework to deal with such problems. Much work has also been done on policy instruments at the national level. Few articles have examined the implementation of policy in domestic contexts, given the different political and administrative structures and the trend towards decentralization of powers to provincial and local authorities. The available literature focuses on few countries (e.g. Angel et al. 1998; Deangelo & Harvey 1998; Bulkeley & Betsill 2003; Rezessy et al. 2006).

This special issue aims to address this gap and complement existing literature by examining how policy responsibilities are shared between national, provincial and local actors in France, Italy, the Netherlands and China. The choice of these four countries emerged automatically out of a collaborative project between institutions from these countries. When we started to work on this special issue, we hoped that there would be relevant literature in different national contexts. This turned out to be quite illusory and we have had to undertake primary data gathering efforts to understand how responsibilities are shared between different governance levels in different countries to deal with the unprecedented problem of climate change.

This special issue consists of five papers, one theoretical paper and four country studies. The latter examine national policy, the division of responsibility between central and lower governments and the ways and means by which each country allocates tasks to different governance levels or the processes by which lower governments and communities can adopt their own initiatives. The case studies examine specific policy developments in cities, provinces or rural areas, and then derive conclusions about the policy space at different levels and about the limits of administrative capacity in general. Some of the interesting issues that arise from the analysis are discussed briefly below.

## 1. Theoretical issues

One of the key discourses in the literature discusses the most appropriate level for taking action. International law and relations scholars automatically perceive climate change as a global issue and call for a global concerted and orchestrated process to deal with the problem. Development scientists and political geographers question the wisdom of focusing solely at this level, arguing that the international level is weak and ill-suited to create the mass movement needed to generate the complex and context relevant solutions needed for such a comprehensive problem such as climate change. They call for decentralized processes and actions that focus on what can be done at the local level, often even bypassing the nation state level. Economists would most likely argue that local level action may well be justified, but since we live in a global era and competitiveness in the international arena is a critical feature of policies, action at the local level will remain limited. This is referred to as the 'territorial trap' within which mindsets are caught (Agnew 1999).

A parallel discourse is on whether there is an optimal level for dealing with climate change. Should the management of the problem 'fit' with the scale of the problem? An analysis of the literature reveals that, curiously enough, there is no objective way to determine the appropriate level of climate change or other environmental problems, since such problems manifest themselves at a number of levels simultaneously. The literature reveals that social actors frame issues at specific levels to suit their own interests and their own perceptions and policy beliefs. A number of arguments have been generated as to why problems should be scaled up to the global level. At the same time, the literature also argues that scaling down can be more effective as knowledge of the local causes, patterns and interests will improve the resolution and detail of understanding and hence will lead to better management instruments. Furthermore, scaling down helps to mobilize people to address their own problems. Sometimes, the scaling-down process is undertaken to avoid liability for impacts elsewhere, to protect sovereignty and local rights and to bypass national governments. Thus, curiously the *politics of scale* refers to the process by which social actors can visualize problems at a specific scale and then promote action accordingly (Gupta [forthcoming]; see Gupta et al. this issue).

A third discussion is the discourse of climate policy against the background of the discourses on government and governance, centralization and decentralization, uniformity/harmonization and pluriformity and local engagement. Since the 1980s, there has been a general trend in the political science literature to focus more on governance than government, focusing on in addition to the state, hierarchical relations, the public sector and a command and control role for government to also analysing the roles of civil society, networks and partnerships, private and community activities and the steering and enabling role of the state. This evolution in the discourse from government to governance focuses more on how the state can allow for greater democracy and legitimacy in policymaking and create more space for pluriform policy and self-regulation by local authorities, non-state actors and communities. At the same time, we are seeing a process, however, slow it may be, of developing global goals, translating them into targets for developed countries as a whole, which are then further translated into targets for supranational entities and countries. But the buck ends there! How can a further translation of these targets be reconciled with this new governance process? The papers in this special issue grapple in many ways with this key question.

In this special issue, we take the position that climate change is a 'glocal' problem that operates simultaneously at several levels, and that attention to the global, supranational and national level, often obscures the need for attention to what happens within the 'black box' of

the national level (Bulkeley & Betsill 2003), to the division of responsibility between different actors in society as well as the adoption of initiative within national systems.

## 2. Division of responsibilities across countries

The papers show how differently the division of responsibilities is organized in different countries. Although climate change appears at first glance to be an environmental issue, in fact it is closely related to many different sectors in society – such as energy. Climate policy does not neatly fit into environmental policy, since it covers so many other fields. However, where environmental policy and climate policy coincide, they tend to reinforce each other. The papers in this volume submit that national governments are to some extent unable to determine exactly how they will achieve their own goals and often there is a clear shortfall between their expected emission reductions and what they have committed to at the international level.

In Italy, the situation is complex. Italy is a democratic republic with 15 regions and five autonomous regions to whom considerable legislative and administrative independence has been given. The regions are further divided into provinces and municipalities. The process of increasing decentralization of powers has been taking place over the last 15 years. France, a democratic republic, has regions subdivided into departments and further subdivided into municipalities. The decentralization process initiated in 1982 has led to a situation in which environmental issues are simultaneously dealt with by different levels in a non-hierarchical multilayered administrative system. The Netherlands is a constitutional monarchy with three levels of government – the centre, 12 provinces and 487 municipalities. In China, a rapidly developing communist country, with a highly centralized state, and in the process of economic transition, tasks are delegated to its provinces, prefectures, counties and municipalities (see Table I).

## 3. Implications for climate policy

The implications of these governance patterns for climate policy are not always clear. In Italy, a large number of responsibilities have been transferred to lower governments, although environmental issues remain mostly centralized. In France, although there is a central government policy, regions are expected to make their own plans and to include climate change in these. Only few of the regions, however, have actually done so. The Netherlands with its unitary governance framework has a national target that is then subdivided among various sectors. However, it is seeking ways to engage the local governments voluntarily into the process of climate policymaking through the provision of subsidies if provinces or municipalities agree to choose certain policies from a menu of policy measures. In China, policy cascades downwards, and national policy is translated into policies for lower governments in line with the authority that is delegated to them. Thus, for instance, the national energy intensity target, i.e. the energy consumption in a society in relation to the gross domestic product, is then re-allocated to the provinces and the provinces are expected to meet these targets. Although China is not yet subject to quantitative targets under the climate convention, it is already exploring ways and means to enhance its energy efficiency (see Table II).

The papers also reveal the wealth of policy instruments being explored in the different countries. While the Netherlands has developed a menu of choices with financial support for lower governments, in France, contracts are made between the centre and provinces for short-term periods that should take climate change into account. In Italy, sometimes autonomous action is taken by individual regions and provinces.

Table I. Comparative administrative structure of government on climate change.

	Italy	France	Netherlands	China
Form of government	Democratic republic	Democratic republic	Constitutional monarchy, democratic, unitary government	Communist, centralized
Lower governments	15 regions and 5 autonomous regions	26 regions (including four overseas) subdivided into 96 metropolitan departments; subdivided into 36,560 municipalities. 17,000 inter-communal groups exist as well.	12 provinces, subdivided into 487 municipalities	23 provinces subdivided into four layers – provinces, prefectures, counties and townships; 2 special administrative regions, 5 autonomous regions and 4 municipalities
Styles of governance practiced	More powers to regional authorities since 2001	Decentralised policy processes since 1982, Non-hierarchical, multi-level system	Consensus orientation (polder model)	Central control

#### 4. The local case studies

Each of these country case studies includes case studies at the local level. The Italian study examines the 'Local Authorities for Kyoto' initiative of local authorities and communities that aim to promote participation of local authorities in emissions trading. A second case study focuses on the emission reduction and adaptation strategy of Venice. The French study examines the 'Plan Climate Territorial' in which lower governments are encouraged to develop their own climate plans and examines Parisian policy. In terms of action in rural areas, it examines wind energy policies. The Netherlands case study examines policies developed in Amsterdam, Rotterdam, Eindhoven, Breda, Leiden, Castricum and Stede Broec and shows how the larger cities focus more on sustainable development and comprehensive strategies while the smaller cities focus on individual ideas to reduce emissions or adapt to climate change. Possible policy options at the local level include improving building constructions, reducing the emissions of municipal services, promoting windmills and, *inter alia*, improving adaptation through the separation of wastewater channels from rainwater channels in new neighbourhoods. The China case study looks at policy initiatives in Beijing, Guandong province and Shanghai.

If we look at the initiatives at the local level, the city of Venice has its own strategic policies to both reduce its emissions and to cope with the rising sea level, which is a very serious threat for this city. The provinces and cities in the Netherlands have been influenced to some extent by international networks such as the International Coalition of Local Environmental Initiatives (ICLEI) and the national Climate Alliance, but are also working in line with government policy. Different cities in the Netherlands have adopted different elements from a menu of choices each suited to its specific context and this possibly reveals that similar

Table II. Division of climate change responsibilities between authorities.

	Italy	France	Netherlands	China
Central	No national planning except on coastal defence from environmental impacts, water and watershed management	Climate policy focusing on sectors	Climate strategy, policy and measures focusing on sectors	Climate policy at central level; laws and general principles
Provincial/ regional	Planning on environment and energy	Infrastructure and housing	Some amount of spatial policy and redistribution of subsidies to local authorities	Development and action plans; some provinces have adopted climate plans. Energy intensity and pollution targets have been assigned to provinces
Sublevel (departments/ prefectures)	–	Infrastructure, housing	–	Practical and managerial guidelines
Local/municipal	Planning for local services	Towns with more than 100,000 inhabitants can take GHG emissions into account in compulsory transport plans. Local plans for sustainable development have to be made. New planning tools have been made available.	Policy on spatial issues, construction and housing, transport, environment and municipal management. Housing must be in accordance with national standards. Local authorities may participate in special subsidy programme on climate change.	Practical and managerial guidelines
Policy instruments to engage local authorities on climate change	Devolution of power to lower governments. Investigating market mechanisms	Devolution of powers to lower governments not always accompanied by greater budgets. Investigating market mechanisms	Central policy making for specific sectors. Subsidies to encourage participation in some areas.	Command and control; delegation of targets to be achieved

policies across the board are unlikely to be effective and that tailor-made policies need to be made. In China, Beijing city is motivated partly by the commitments it has taken on board as host city to the Olympics and is financing a number of policies. The relatively rich Guangdong province, faced by reduced energy resources and high-energy prices, is energy efficient and is now focusing on a fuel switch to LNG. Its plans are being supported by the Central

Government. In Shanghai, the focus is also on raising public awareness on climate change to promote energy and environmental consciousness.

In Italy and France, there is a search for expanding the emissions trading instrument to include not just large industries, but also to reward municipalities and rural areas for reducing their emissions. Thus, while the Netherlands uses subsidies to promote change at the local level, France and Italy are looking at the role of market mechanisms. However, ideas on expanding emissions trading are also being discussed within the Netherlands. Within China, the focus is on command and control, although local initiative and ideas often receive a positive response from the central government.

## 5. Challenges ahead

The case studies reveal that since governments are in the process of transition, in terms of how authority is shared between different authorities, there is no clear division of responsibilities with respect to climate change; except, relatively speaking, perhaps in the Netherlands. Where extensive decentralization and devolution of authority has taken place, it is both difficult to coordinate and harmonize policy (e.g. Italy). Furthermore, the transfer of responsibility to the local level as well as to the European Union level often creates confusion as to who takes measures. The role of the national government as an intermediate agency often becomes unclear (e.g. Italy and France). Thus, for example, although France has national targets, the national government does not impose regulations on, *inter alia*, the transport sector, instead relying on incentives. Where the devolution of power is not accompanied by the transfer of sufficient resources (e.g. France), this limits the ability of local authorities to take the necessary action. Such devolution of authority to sectors and lower governments often comes at the price of integration, i.e. it leads to policies on transport and not on mobility (e.g. France). In centralized systems, a major barrier for action is the lack of resources (e.g. China), although this problem is being dealt with in the Netherlands through a subsidy system.

The case studies show national governments grappling with the huge problem of climate change and unable to find ways and means within existing regulatory frameworks that can automatically lead to problem management. In each case, the relations with lower governments are being revisited and redefined to ensure greater coherence in policymaking and to seek new opportunities for policymaking. After all, local governments are mostly in charge of spatial planning, local transportation, housing and energy. If local planning tools can be used to redesign localities to make them more sustainable and reshape consumption patterns, then this will complement the efforts of national governments to control the large industry – the energy producers, chemical industry and the auto manufacturers. This should not in any way convey the message that local governments and societies are nested within governmental hierarchies and are merely implementing government policies. Local governments and communities are just as capable of developing their own initiative to develop context relevant policies and promote different behavioural patterns, sometimes, but not always, in response to transnational networks and international problems. They are often also in a better position to aim at climate neutral emission policies and sustainable development (see the targets of cities in the Netherlands) and are thus interesting microcosms of how nations and even the global community can develop.

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